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PATENT

Attorney Reference Number 6424-61326-01
Application Number 10/035,814

In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A genomic profile information system accessible over a communications network, the genomic profile information system comprising:
data for a plurality of participants indicating genomic profile information of the participants;
and
a software system comprising privacy settings for at least one of the participants and controlling access by others over the communications network to genomic profile information of the participant, wherein the participant controls the privacy settings for the participant, and the privacy settings for the participant can be configured by the participant over the communications network;
wherein the genomic profile information system is operable to indicate that **a plurality of the participants comprising the participant is a member are members** of a group;
wherein the group is designated for members interested in avoiding or treating a particular medical condition, the genomic profile information system is operable to provide group members with access to genomic profile information group functions and information, and the members comprise ~~at least one of~~ **a plurality of** the participants for which genomic profile information is stored; ~~and~~
wherein the genomic profile information group functions comprise exchanging information with other group members; ~~and~~
wherein the group is designated for a plurality of participants having a similar gene, illness, or disease.
2. (original) The genomic profile information system of claim 1 wherein the software system enforces confidentiality for the genomic profile information of the participant unless otherwise specified by the participant.

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3. (original) The genomic profile information system of claim 1 wherein:
the settings indicate a computer system under a participant's control on which at least some of the participant's genomic profile information resides; and
the software system accordingly directs requests for information residing on the computer system under the participant's control to the computer system under the participant's control.

4. (original) The genomic profile information system of claim 3 wherein at least some of the participant's genomic profile information residing on a computer system under the participant's control is provided to another participant via a peer-to-peer network arrangement.

5. (original) The genomic profile information system of claim 1 wherein identity of the participant is authenticated over the communications network via biometric screening.

6. (original) The genomic profile information system of claim 1 wherein the privacy settings comprise separate privacy settings for other participants and for researchers.

7. (original) The genomic profile information system of claim 1 wherein the privacy settings comprise separate privacy settings indicating whether medical information of the participant can be accessed by others.

8. (original) The genomic profile information system of claim 1 wherein:
the software system indicates whether the participant is a member of one or more groups; and
the privacy settings comprise separate privacy settings indicating whether group membership information of the participant in the system can be accessed by others.

9. (original) The genomic profile information system of claim 1 wherein the privacy settings comprise separate privacy settings indicating whether a primary disease of the participant can be accessed by others.

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10. (original) The genomic profile information system of claim 1 wherein:
the settings indicate whether a participant's genomic profile information can be examined by
other participants; and

the software system accordingly allows examination of the participant's genomic profile
information by other participants while preserving anonymity of the participant.

11. (original) The genomic profile information system of claim 10 wherein:
the settings indicate one or more participants are members of a group;
the settings indicate whether a participant's genomic profile information can be examined by
other participants who are members of the group; and

the software system accordingly allows examination of the participant's genomic profile
information by other participants who are members of the group while preserving anonymity of the
participant.

12. (original) The genomic profile information system of claim 1 further comprising:
software for identifying two or more participants having similar genomic profile information;
wherein the identifying software presents a user interface option to a participant for contacting another
similar participant while maintaining anonymity of the similar participant.

13. (original) The genomic profile information system of claim 1 wherein:
the settings comprise an identifier by which a participant can be identified anonymously; and
the software system accordingly identifies the participant via the identifier.

14. (original) The genomic profile information system of claim 1 wherein the settings
indicate whether a participant's genomic profile information can be examined by other participants.

15. (original) The genomic profile information system of claim 1 wherein the settings
indicate whether a participant's genomic profile information can be examined on behalf of other
participants.

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16. (original) The genomic profile information system of claim 1 wherein the settings indicate whether a participant's genomic profile information can be examined for a comparison at the request of another participant.

17. (original) The genomic profile information system of claim 1 wherein the settings indicate whether a participant's genomic profile information can be distributed.

18. (original) The genomic profile information system of claim 1 wherein the settings indicate an organization to which a participant's genomic profile information can be distributed.

19. (previously presented) The genomic profile information system of claim 1 wherein a set of participants have a disease condition, and the genomic profile information comprises information indicating the outcomes of therapies for the disease condition.

20. (original) The genomic profile information system of claim 1 wherein the genomic profile information system further comprises comparison tools operable by a researching participant having a disease condition, and the tools identify therapy outcomes for participants having a disease condition and molecular portrait similar to the researching participant.

21. (original) The genomic profile information system of claim 1 further comprising:
a comparison tool software system comprising comparison tools for comparing genomic profile information for two or more participants.

22. (original) The genomic profile information system of claim 21 wherein the participant is a patient having a disease condition, and the comparison tools support patient-driven comparative analyses of genomic profile information over a communications network.

23. (original) The genomic profile information system of claim 21 wherein at least one of the tools compares gene expression.

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24. (original) The genomic profile information system of claim 21 wherein at least one of the tools compares drug response information.
25. (original) The genomic profile information system of claim 21 wherein the comparison tools provide comparison results indicating one or more participants, and the participants are listed anonymously in the comparison results.
26. (original) The genomic profile information system of claim 25 wherein at least one of the anonymous listings of the participants can be selected by a computer user interface to send a message to the anonymously-listed participant.
27. (original) The genomic profile information system of claim 1 wherein the genomic profile information comprises genomic pathology information for one or more participants.
28. (original) The system of claim 1 wherein the system has information for over 10,000 participants.
29. (original) The system of claim 1 wherein the system has information for over 100,000 participants.
30. (original) The system of claim 1 wherein the system has information for over 1,000,000 participants.
31. (original) The system of claim 1 wherein the system has information for over 10,000,000 participants.
32. (original) The system of claim 1 wherein the system has information for over 100,000,000 participants.

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33. (Currently amended) A method comprising:
registering an individual as a participant in a genomic profile information center;
collecting personal genomic profile data of the participant;
adding the participant to a genomic profile information database;
granting the participant custodial control over the participant's genomic profile information;
and
indicating in the center that the participant is one out of a plurality of participants who are a member members of a group;
wherein members of the group are limited to those having a particular medical condition;
wherein the group is designated for a plurality of members interested in avoiding or treating a particular medical condition, the genomic profile information center is operable to provide group members with access to genomic profile information group functions and information, and the members comprise ~~at least one~~ a plurality of the participants for which genomic profile information is stored; and
wherein the genomic profile information group functions comprise exchanging information with other group members.

34. (original) A computer-readable medium comprising computer-executable instructions for performing the method of claim 33.

35. (original) The method of claim 33 wherein custodial control comprises controlling, via a computer user interface, whether the participant's genomic profile information is to be provided to others.

36. (original) The method of claim 33 wherein custodial control comprises controlling, via a computer user interface, whether the participant's genomic profile information is to be provided for use in a particular study.

37. (original) The method of claim 33 wherein custodial control comprises controlling whether other participants being members of a designated group can access the participant's genomic

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profile information.

38. (original) The method of claim 37 wherein the participant's genomic profile information is identified anonymously.

39. (original) The method of claim 33 further comprising:
as a result of receiving authorization from the participant to provide the participant's genomic profile information for use in research, compensating the participant.

40. (original) The method of claim 39 wherein compensation originates from payment by a third party.

41. (Currently amended) A method comprising:
analyzing a biological sample collected from a patient to generate a genomic profile for the patient;
incorporating the genomic profile for the patient into a genomic profile information collection comprising genomic profile information for a plurality of other patients;
compensating the patient by providing at least some level of access to the genomic profile information collection; and
indicating in the collection that the participant is a member of a group, wherein the group is designated for a plurality of members interested in avoiding or treating a particular medical condition;
and
providing group members with access to genomic profile information group functions and information, wherein the members comprise ~~at least one patient~~ a plurality of patients for which genomic profile information is stored in the collection;
wherein the genomic profile information group functions comprise exchanging information with other group members; and
wherein the group is designated for a plurality of patients having a similar gene, illness, or disease.

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42. (original) The method of claim 41 wherein the genomic profile information collection comprises a network of computers communicating via a peer-to-peer network arrangement.

43. (original) The method of claim 41 wherein incorporating comprises storing a reference to a computer under control of the patient at which genomic profile information for the patient can be accessed.

44. (original) The method of claim 41 wherein the genomic profile for the patient is stored on a computer system under control of the patient and accessed by others by accessing the computer system under control of the patient.

45. (original) The method of claim 41 wherein the genomic profile for the patient is stored on a computer system under control of the patient and access to the genomic profile for the individual is provided by the computer system under control of the patient.

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46. **(Currently amended)** A method comprising:
registering an individual as a participant in a genomic profile information network;
collecting genomic profile information from the participant, wherein the genomic profile information from the participant comprises gene expression information for one or more genes based on a biological sample taken from the participant;
adding the genomic profile information from the participant to a collection of data comprising genomic profile information from other participants, wherein the genomic profile information from the other participants comprises gene expression information for the one or more genes based on biological samples taken from the other participants;
comparing the genomic profile information of the participant with that from the other participants to generate comparison results indicating closeness between the participant's genomic profile information and genomic profile information of one or more of the other participants;
presenting the genomic profile information of the one or more other participants, wherein identities of the one or more other participants remain anonymous; and
indicating in the collection that the participant is a member of a group, wherein the group is designated for members interested in avoiding or treating a particular medical condition; and
providing group members with access to genomic profile information group functions and information, wherein the members comprise ~~at least patient~~ a plurality of patients for which genomic profile information is stored in the collection;
wherein the genomic profile information group functions comprise exchanging information with other group members; and
wherein the group is designated for a plurality of patients having a similar gene, illness, or disease.

47. **(original)** The method of claim 46 further comprising:
accepting a selection via a graphical user interface from the participant indicating a message is to be sent to the one or more other participants; and
responsive to the selection, sending a message to the one or more other participants.

48. - 54. (canceled)

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55. **(Currently amended)** A method comprising:
collecting a biological sample from a person;
performing analysis on the sample to generate personal genomic profile for the person;
pooling the personal genomic profile with personal genomic profiles from other people into a collection of anonymous personal genomic profiles;
selling the collection of anonymous pooled personal genomic profiles to a requesting entity for payment;
as a result of the sale, compensating the person via the payment; and
indicating in the collection that the person is a member of a group, wherein the group is designated for members interested in avoiding or treating a particular medical condition; and
providing group members with access to genomic profile information group functions and information, wherein the members comprise ~~at least person~~ a plurality of people for which genomic profile information is stored in the collection;
wherein the genomic profile information group functions comprise exchanging information with other group members; and
wherein the group is designated for a plurality of people having a similar gene, illness, or disease.

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56. (Currently amended) A method comprising:
directing a person to supply a biological sample from the person's body to a laboratory;
receiving an analysis of the biological sample from the laboratory and incorporating the
analysis into a personal genomic profile for the person;
pooling the personal genomic profile with personal genomic profiles from other people into a
collection of anonymous personal genomic profiles;
selling the collection of anonymous pooled personal genomic profiles to a requesting entity for
payment;
as a result of the sale, compensating the person via the payment;
designating the person as a member of a group; and
providing the person with access to group functions and information;
wherein members of the group are limited to those interested in acquiring information about a
particular medical condition; and
wherein the group is designated for a plurality of people having a similar gene, illness, or
disease.

57. - 58 (canceled)

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59. (Currently amended) A method for motivating a participant to contribute to a genomic profile information database, the method comprising:

- receiving personal genomic profile information of the participant for addition to the database;
- adding the personal genomic profile information to the database;
- providing comparative genomic analysis to the participant in exchange for receiving the personal genomic profile information of the participant, wherein the comparative genomic analysis comprises comparing the personal genomic profile information to personal genomic profile information for other participants in the database; and
- indicating in the database that the participant is a member of a group, wherein the group is designated for members interested in avoiding or treating a particular medical condition; and
- providing group members with access to genomic profile information group functions and information, wherein the members comprise ~~at least one participant~~ a plurality of participants for which genomic profile information is stored in the database;

wherein the genomic profile information group functions comprise exchanging information with other group members; and

wherein the group is designated for a plurality of participants having a similar gene, illness, or disease.

60. (original) The method of claim 59 wherein receiving personal genomic profile information of the participant comprises:

- receiving genotype information of the participant; and
- receiving phenotype information of the participant.

61. (original) The method of claim 58, further comprising:

- receiving payment for a collection of genomic profile information comprising the individual genomic profile information;
- wherein the monetary compensation is derived from the payment.

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62. (original) The method of claim 58, further comprising:
combining the individual genomic profile information into a collection of genomic profile information comprising the individual genomic profile information; and
selling the collection of genomic profile information comprising the individual genomic profile information in exchange for a payment;
whercin the monetary compensation is derived from the payment.

63. (Currently amended) A method comprising:
storing a personal genomic profile for a participant in a database;
designating the participant as a member of a group along with a plurality of other participants for which personal genomic profiles are stored in the database; and
providing the participant with access to group functions and information
wherein the genomic profile information group functions comprise exchanging information with other group members; and
wherein the group is designated for a plurality of participants having a similar gene, illness, or disease.

64. (canceled)

65. (original) The method of claim 63 further comprising:
limiting members of the group to those interested in acquiring information about a particular medical condition.

66. (original) The method of claim 63 further comprising:
limiting members of the group to those having a particular medical condition.

67. (previously presented) The method of claim 63 further comprising:
limiting members of the group to those having similar age, sex, or race.

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68. - 69. (canceled)

70. (Currently Amended) A method for building a genomic profile information database, the method comprising:

responsive to the request of an individual human being, adding a personal genomic profile for the individual human being to the database;

receiving a request to provide a collection of information comprising the personal genomic profile to a requestor in exchange for payment;

responsive to the request to provide a collection of information comprising the personal genomic profile, providing an anonymous version of the personal genomic profile from the database to the requestor in exchange for payment;

based on having provided the anonymous personal genomic profile to the requestor, compensating the individual human being for having added the personal genomic profile via the payment;

indicating in the database that the individual human being is a member of a group, wherein the group is designated for members interested in avoiding or treating a particular medical condition; and

providing group members with access to genomic profile information group functions and information, wherein the members comprise ~~at least one participant~~ a plurality of participants for which genomic profile information is stored in the database;

wherein the genomic profile information group functions comprise exchanging information with other group members; and

wherein the group is designated for a plurality of participants having a similar gene, illness, or disease.

71. (canceled)

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72. (Currently Amended) A method for providing a service to a remote customer, the method comprising:

- obtaining a personal genomic profile of the customer;
- pooling the profile with other profiles;
- over a computer network connection, providing the customer with tools to compare the profile with other profiles in the pool;
- indicating that the customer is a member of a group, wherein the group is designated for members interested in avoiding or treating a particular medical condition; and
- providing group members with access to genomic profile information group functions and information, wherein the members comprise ~~at least one participant~~ a plurality of participants for which genomic profile information is stored;
- wherein the genomic profile information group functions comprise exchanging information with other group members; and
- wherein the group is designated for a plurality of participants having a similar gene, illness, or disease.

73. - 86. (canceled)

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87. **(Currently Amended)** A computer-readable medium having computer-executable instructions for performing the following:

- receiving personal genomic profile information for an individual;
- adding the personal genomic profile information to a database;
- retrieving a pool of information from the database;
- receiving an indication that the pool of information has been sold;

responsive to receiving the indication, recording compensation data indicating the individual is to be compensated;

indicating in the database that the individual is a member of a group, wherein the group is designated for members interested in avoiding or treating a particular medical condition; and

providing group members with access to genomic profile information group functions and information, wherein the members comprise ~~at least one individual~~ **a plurality of individuals** for which genomic profile information is stored in the database;

wherein the genomic profile information group functions comprise exchanging information with other group members; **and**

wherein the group is designated for a plurality of individuals having a similar gene, illness, or disease.

88. (original) The computer-readable medium of claim 87 wherein receiving the profile information comprises receiving the profile information over a computer network connection.

89. (original) The computer-readable medium of claim 88 wherein receiving the profile information comprises receiving the profile information from a remote laboratory.

90. (original) The computer-readable medium of claim 87 wherein the indication is received over a computer network connection.

91. (original) The computer-readable medium of claim 87 wherein the pool of information from the database is a set of personal genomic profiles having specified criteria.

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92. (original) The computer-readable medium of claim 91 further comprising computer-readable instructions for performing the following:

receiving the specified criteria from a rescarcher; and
presenting a number of individuals meeting the criteria to the researcher.

93. (canceled)

94. (Currently Amended) A genomic profile information center comprising:

means for collecting personal genomic profiles from a plurality of participants;

means for pooling the personal genomic profiles into a collection of personal genomic profiles;

and

means for recording compensation due to a participant as a result of having sold the collection to a requesting entity; wherein the genomic profile information center is operable to indicate that the participant is a member of a group;

wherein the group is designated for a plurality of members interested in avoiding or treating a particular medical condition, the genomic profile information center is operable to provide group members with access to genomic profile information group functions and information, and the members comprise ~~at least one~~ a plurality of the participants for which genomic profile information is stored; and

wherein the genomic profile information group functions comprise exchanging information with other group members; and

wherein the group is designated for a plurality of participants having a similar gene, illness, or disease.